

Remarks

Claims 22-31 are at issue. Claims 22-31 stand rejected under 35 USC § 103 (a), as being unpatentable over Naik et al. (5548647) in view of Higgins (5339385) and further in view of Juang et al (5590242)

The Examiner has pointed to Juang et al. to show the idea of a preliminary decision. Juang et al clearly discuss the idea of preliminary decisions. However, the brief mention of preliminary decisions states "Vector quantization is sometimes used as a preprocessor step to perform preliminary recognition decisions in order to reduce the computational load of a recognizer."

Compare this to the present application, which states "The decisions are weighted because not all utterance provide equal reliability." (Spec. Page 7, lines 3-5) A reading of Juang et al would not teach one skilled in the art to combine the decisions based on their reliability. In fact a reading of Juang et al would lead one skilled in the art to only use the technique if they are processor power limited. In addition, a reading of Juang et al would lead one skilled in the art to expect the same final decision when using this technique as the conventional method. Juang et al do not teach making a preliminary decision on a specific utterance. Thus Juang et al might make a preliminary decision in the middle of one of the utterances. This would provide none of the benefits outlined in the specification.

A clear reading of Juang et al would teach away from the present application, by leading one skilled in the art to use a preliminary decision merely to reduce processing power. One skilled in the art would conclude from Juang et al that there is no "speech recognition" reason for using preliminary decisions. It is the applicant's guess based on the limited amount of information in Juang et al that there is no difference in the final decision using vector quantization preliminary decision technique and the standard technique used by Juang et al. If this is the case. Juang et al clearly teaches away from the present application.

In the present application a preliminary decision is made for each of a plurality of utterances. For instance, a preliminary

decision is made for each number in a PIN. Assuming the spoken PIN is 8,6,3 the present application might have a raw closeness score for each of these utterances of 5 for the spoken 8, 55 for the spoken 6 and 65 for the spoken 3. A preliminary decision might be a true for any score 50 and above and false for any score below 50. Using this example, the application would suggest a false for the spoken 8, a true for the spoken 6 and a true for the spoken 3. If all these utterances are equally weighted the final decision would be a true (2-true, 1-false). In contrast, a standard technique would add the 5, 55, & 65 for a total score of 125. The average score then would be 41.67 and the answer would be a false.

Clearly the technique of Juang et al does not teach the power of using preliminary decisions and in fact the preliminary decisions of Juang et al may not provide the benefits of the present application. The stated purpose of Juang et al teaches away from the present application.

Claim 22 requires a preliminary decision for each utterance. There is nothing in Juang et al that requires a preliminary decision for each utterance. According to Juang et al the preliminary decision might come in the middle of an utterance. Claim 22 is allowable over the prior art.

Claim 23 requires weighting each preliminary decision. Naik et al do not discuss preliminary decisions. There is no suggestion in Juang et al to weight or combine the preliminary decisions. Combining Naik et al with Juang et al does not teach or suggest to one skilled in the art to weight preliminary decisions. In fact, Juang et al teaches away from the present technique. Claim 23 is allowable over the prior art.

Claims 24 & 25 depend from claim 23 and are allowable for the same reasons.

Claims 26, 27 & 28 are allowable as being dependent upon an allowable base claim.

Claim 29 requires a preliminary decision for each utterance. There is nothing in Juang et al that requires a preliminary decision for each utterance. According to Juang et al the preliminary decision might come in the middle of an utterance. Claim 29 is allowable over the prior art.



Claims 30 & 31 are allowable as being dependent upon an allowable base claim.

Prompt reconsideration and allowance of the application are respectfully requested.

Respectfully submitted,

(Bossemeyer, Jr. et al.)

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